

10-10-2005

REVISED 12-02-2005 (*ITALICS*)

REVISED 01-05-2006 (DASHED UNDERLINED)

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## **INTERIM PROTOCOL REGARDING BUILDINGS WITH CODE REQUIRED NON-WORKING FIRE ALARM AND/OR CODE REQUIRED NON-WORKING SPRINKLER SYSTEMS**

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Due to the aftermath from recent hurricane damage, the adverse effects of wind, rain and flooding have rendered many building fire alarm and sprinkler systems deficient or completely non-functional. Essential items to these systems have been compromised and include but are not limited to:

- Flooded critical equipment: fire alarm panels and devices, fire pump, controllers, pump emergency power, sprinkler riser trim, etc.
- Deficient water supply from municipal mains.
- Sporadic and dynamic changes to municipal water supplies, due to ongoing repair and replacement of damaged mains.
- Field reports of nonfunctioning fire alarm devices failing to provide trouble signals to the fire alarm panel.
- Field reports of flooded fire alarm wiring being compromised, thus producing a ground fault at the fire alarm control panel.

Because these life safety systems have been compromised, the following protocol shall be required for all buildings containing code required non-working building fire alarm and/or sprinkler systems.

Buildings shall be allowed temporary occupancy only where a fire watch is implemented throughout the building and as qualified below. If occupancy is other than Health Care, then access our website at [dps.state.la.us/sfm](http://dps.state.la.us/sfm), then press Inspections, then press Requirements for Temporary Fire Watch. If occupancy is Health Care, then access our website at [dps.state.la.us/sfm](http://dps.state.la.us/sfm), then press Health Care, then press Health Care Fire Watch Procedures. A written request from building owner shall be submitted to the district inspections office supervisor prior to temporary occupancy. A state fire marshal general inspection shall be scheduled at the time of fire watch implementation.

Exact replacements-in-kind of fire alarm or sprinkler systems items described below are not required to be submitted to this office for plan review.

All changes, substitutions, relocations, additions, etc. shall be submitted for plan review. Exemption request for submittal is acceptable, provided scope of work is within limitation guidelines.

Prior to full plan review submittal, on an emergency basis, licensed contractors may submit a description of the scope of work and this office may grant a "go to work order" so that immediate installation may begin prior to plan submittal. Owners will be allowed a 60-day grace period to submit plans once a "go to work order" is processed. See this office's 9-15-2005 Memorandum, "Plan Review: Hurricane Procedures for System Replacements" on our website <[www.dps.state.la.us/sfm](http://www.dps.state.la.us/sfm)>.

All replacements-in-kind, changes, substitutions, relocations, additions, etc. shall be inspected by this office prior to release of an approved fire watch.

### **CODE REQUIRED NON-WORKING FIRE ALARM SYSTEM**

1. Fire alarm systems requiring replacement in part or in total and shall have a full reacceptance test performed by a licensed fire alarm contractor.
2. Fire alarm panels, associated devices (i.e. automatic detectors, horns, speakers, strobes, monitoring modules, relays, etc.) and associated wiring in direct contact with flood waters shall be replaced. Fire alarm panels requiring replacement shall be relocated a minimum of 12 inches above the Base Flood Elevation (BFE). BFE shall be defined as the highest flood waterline established inside a building, due to recent storm surge or levee breach.

3. Fire alarm panels, associated devices (i.e. automatic detectors, horns, speakers, strobes, monitoring modules, relays, etc.) and associated wiring located above the flood water mark or exposed to blowing rain, severe winds, etc. shall be thoroughly inspected for possible adverse effects from moisture, mold, mildew, structural damage, etc. Contaminated or damaged equipment shall be replaced. See Sprinkler System Items 2 and 3, below, for requirements to emergency generators serving fire alarm systems.
4. All items described in 2, and 3, above, located above the flood water mark but exposed to blowing rain, severe winds, etc. shall be thoroughly inspected for possible adverse effects from moisture, mold, mildew, shorting or ground fault, structural damage, etc. Contaminated or damaged equipment shall be replaced.
5. Owner/fire alarm contractor shall inspect all single station smoke detectors for damage and/or possible contamination of moisture, mold or mildew to ensure proper working order. Contaminated or damaged equipment shall be replaced.

#### **CODE REQUIRED NON-WORKING SPRINKLER SYSTEM**

1. Sprinkler systems requiring replacement in part or in total and shall have a full reacceptance test performed by a licensed sprinkler contractor, and shall meet testing requirements of NFPA 25, 2002 edition.
2. The following sprinkler system components in direct contact with flood waters shall be thoroughly inspected for proper operation, as per specific instructions given by each applicable component manufacturer: sprinkler piping, non-electric valves, backflow preventers, water meters, pressure gauges, accelerators, retard chambers, all non-electrical riser trim, hydraulic portion of alarm-check valves, fire pumps, non-electric portions of diesel engine motors, non-electric portions of internal combustion engine emergency generators serving fire pumps. As required by component manufacturer, a component may require partial or complete tear down, overhaul, lubrication and packing, and reassembly, or replacement. *If damaged fire pumps are replaced with new units, the new pump, motor, controller, etc., shall be relocated a minimum of 12 inches above the Base Flood Elevation (BFE). BFE shall be defined as the highest flood waterline established inside a building, due to recent storm surge or levee breach. If damaged emergency generators are replaced with new units, the new generator and all associated componentry shall be relocated above the Base Flood Elevation (BFE). If damaged fire pumps are repaired in place (new pump not provided), then existing pump may remain in place and all componentry associated with fire pump allowed to remain adjacent to existing location of pump. If damaged internal combustion engine emergency generators are repaired in place (new generator not provided), then existing generator may remain in place and all componentry associated with generator allowed to remain adjacent to existing location of generator.*
3. The following sprinkler system components in direct contact with flood waters shall be replaced: sprinkler heads, all electrical components and wiring associated with the sprinkler system, including electric portion of alarm-check valves, flow switches, pressure switches, all electric componentry associated with fire pumps (i.e. electric motors, controllers, electric panels, switchgear, wiring, diesel engine electric components, etc.), all electric componentry associated with internal combustion engine emergency generators serving fire pumps, all electric emergency generators serving fire pumps,
4. All items described in 2, and 3, above, located above the flood water mark but exposed to blowing rain, severe winds, etc. shall be thoroughly inspected for possible adverse effects from moisture, mold, mildew, shorting or ground fault, structural damage, etc. Contaminated or damaged equipment shall be replaced.
5. Relocation of fire pumps or any sprinkler system componentry effecting hydraulic performance shall be submitted for plan review. Control of overpressurization shall be demonstrated.
6. In lieu of a fire watch, one or more of the following interim equivalencies is acceptable. Regardless of which interim water supply is proposed, the owner shall document interim time involved and completion date to remove interim equivalency from operation.
  - A. Temporary water tank. If a temporary water tank is utilized, the tank shall offset the deficient municipal water supply and be sized to supply the hydraulic demand, water duration and hose stream requirements of the building placard and NFPA 13. The temporary water tank is not required to comply with NFPA 22, Standard for Water Tanks for Private Fire Protection.
  - B. Temporary fire pump. If an existing fire pump is impaired, a temporary fire pump may be allowed to be connected to the municipal water supply, a temporary storage tank, or both. The temporary pump is not required to comply with NFPA 20 Standard for the Installation of Stationary Pumps for Fire Protection.
7. Ongoing overhaul, reworking and repair of municipal water grids are creating both depleted and overpressurized water supplies. This office shall require sprinkler system pressure gauges to be checked daily due to these drastic fluctuations in

water pressure. Documentation shall include history of gauge readings and fire pump tests. The Owner shall document that the water supply satisfies the building sprinkler system placard demand. If a placard is not available, a rooftop manifold test shall be performed, proving the applicable code required pressure at the roof. Control of overpressurization shall be demonstrated. Because of this dynamic fluctuation of water, a building fire watch shall continue until owner can demonstrate that water supply has stabilized, the demand does not exceed the supply, and overpressurization does not occur.

8. For buildings unharmed from the effects of hurricane winds, rain and flood waters, the municipal water supply may be temporarily deficient. Building owners shall follow the guidelines in Item 7 above. Consistent, adequate water supply shall be demonstrated. A building fire watch shall be provided until owner can demonstrate that water supply has stabilized, the demand does not exceed the supply, and overpressurization does not occur.
9. Recent field inspections have revealed that many sprinkler system jockey pumps were not connected to emergency power. As a result, the jockey pump did not function because municipal power was impaired. Fire pumps that were connected to emergency power were signaled to operate due to low pressure signal initialed by failed jockey pump. Fire pump ran full force and motor seized, due to depleted city water supply and motor overheating. Because of this occurrence, it shall be a requirement of this office that, for all fire pumps connected to emergency power, the associated jockey pump shall also be connected to emergency power.